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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,683	11/24/2003	Bob Streefkerk	081468-0306882	1907
909	7590	09/12/2006	EXAMINER RUTLEDGE, DELLA J	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			ART UNIT 2851	PAPER NUMBER

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,683

Applicant(s)

STREEFKERK ET AL.

Examiner

D. Rutledge

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-46 and 48-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-46, 48-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 - 3, 6 - 46, 48 - 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster (US Pat. No. 7,092,069) alone or in view of Harchanko (US Pub. No. 2006/0050414).

Claims 1 - 3, 6, 8, 18 - 24, 36, 38 - 40, 42 - 46, 53 - : Shuster discloses the basic lithographic apparatus having the projection system with support for the projection elements and immersion lens 14. See Fig. 1 and 2. The secondary reference discloses an a mounting process for an immersion lens for use with a lithographic apparatus. The

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process has the basic teaching of the use of direct bonding of the lens to a support.

The bonding may include heating or non-heating and the use of an adhesive. See paragraph 0033. One of ordinary skill in the art would be motivated to use the direct bond process to mount the immersion lens of the Schuster apparatus.

Claims 7, 25: without heat, see paragraph 0033

Claims 9, 27: the heating temperature is not disclosed, but whatever heat temperature is necessary would be used

Claims 8, 26, 28, 44, 48, 49 : with heat, clean surface, see paragraph 0033. Using a clean surface is recognized in a bonding environment

Claims 16, 17, 30, 34, 35, 40, 45, 51, 52: material composition of element and support glass, fused silica, see paragraph 0036 and 0037

Claims 11, 13 - 15, 29, 31 - 33, 50: the reference teaches using an epoxy; some epoxy bond are soldered.

5a. Claims 1 - 3, 6 - 46, 48 - 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster (US Pat. No. 7,092,069) alone or in view of Do et Al. (US Pub. No. 2003/0231835).

Claims 1-3,12, 16-24, 30, 34-46, 48, 51-53: The primary reference has the basic lithographic apparatus, but does not disclose how the immersion lens 14 is mounted to the support. Do et al., in paragraph 0026, disclose using an adhesive or soldering an optical element to its support. One of ordinary skill in the art would be motivated to use the method taught to mount the optical elements of the Schuster et al. apparatus.

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Claims 6-11, 13-15, 26 - 29, 31-33, 44, 48- 50: the reference teaches soldering and using an adhesive, so using a clean surface, using a process with or without heat are all taught

Allowable Subject Matter

6. Claims 5 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not identify the port identification for the photo device as claimed.

Response Data

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Rutledge whose telephone number is (571) 272-2127. The examiner can normally be reached on Mon - Thurs, 6:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


D. Rutledge
Primary Examiner
Art Unit 2851

dr
9/5/2006